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Improved Grade Outcomes With An E-mailed 'Grade Nudge.'

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IMPROVED GRADE OUTCOMES WITH AN E-MAILED 'GRADE NUDGE.'

Ben Smith Dustin White Patricia Kuzyk James Tierney

Presentation at Innovation in Pedagogy and Technology Symposium

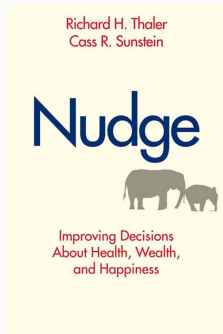
University of Nebraska at Omaha

Washington State University

The Pennsylvania State University

Published: [The Journal of Economic Education](#)

<https://doi.org/10.1080/00220485.2017.1397570>



Hi [Name],

As of now, you have a(n) [Grade] in the class. This assignment is worth [Points] points. If you get more than [X] on this assignment, your class grade will increase to a(n) [Higher Grade]. If you get less than [Y] on this assignment, your grade will drop at least one grade. Not doing the assignment will result in a(n) [Lower Grade].

RANDOMIZED TRIAL

$$s_{ij} = \beta_0 + \beta_N \text{Nudge}_{ij} + \mu_i + \gamma_j + \varepsilon_{ij}$$

- μ_i : Individual Fixed Effects
- γ_j : Assignment Fixed Effects
- s_{ij} : Assignment Score [0-1]
- Nudge_{ij} : Treatment (0 or 1)

REGRESSION RESULTS

	Sports Fall 2014	Sports Fall 2015	All Sports	Micro Fall 2016	All
β_N	0.044	0.052	0.047	0.034	0.038
Cluster-Bootstrap P-Value	0.072	0.295	0.045	0.048	0.005
Observations	204	110	314	462	776
Students	34	22	56	66	122
Assignments	6	5	11	7	18

	Sports Classes	All Classes
β_{NF}	0.107	0.106
Cluster-Bootstrap P-Value	0.057	0.043
β_N	0.031	0.033
Cluster-Bootstrap P-Value	0.214	0.021
Observations	314	776
Students	56	122
Assignments	11	18

$$\begin{aligned}
 s_{ij} = & \beta_0 + \beta_{NF} \text{Nudge First}_{ij} \\
 & + \beta_N \text{Nudge}_{ij} + \mu_i \\
 & + \gamma_j + \varepsilon_{ij}
 \end{aligned}$$

STUDENT PERCEPTIONS

SURVEY RESULTS (N=54)

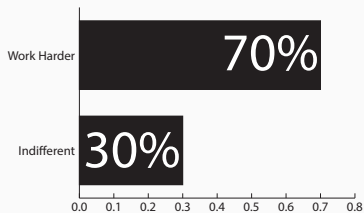


Figure: Did the nudge make you study harder?

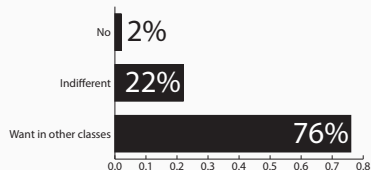


Figure: Do you want the nudge in your other classes?

NUDGE SOFTWARE

WHAT YOU NEED...

1. Google Drive Account
2. Your Gradebook
3. Your Gradescale
4. Nudge

A	B	C
name	email	points
Joe	joe@bensresearch.com	250
Ben	ben@bensresearch.com	200
Jane	jane@bensresearch.com	275

THE GRADESCALE

A	B
Grade	threshold
A	0.93
A-	0.9
B+	0.87
B	0.83
B-	0.8
C+	0.77
C	0.73
C-	0.7
D+	0.67
D	0.63
D-	0.6
F	0

THE INTERFACE

GRADE NUDGE

Delivery

- ☒ Send nudge via E-Mail without the assignment
- ☐ Share the Google Drive document with the student
- ☐ Send a PDF of the document in the E-Mail
- ☐ Save nudge to 'message' column of gradebook

Files

Select Gradebook
Demo Small Student Sample
Select Gradescale
Demo Grade Scale

Assignment Value

Assignment Points:
Total Points in the Class:

Nudge Message Options

- ☒ Calculate incomplete score
- ☒ Calculate next grade up
- ☒ Calculate next grade down
- ☒ Calculate percent scores

[Help and Documentation >](#)

E-Mail

ECON 2200 / Reminder of Homework Three

This is a reminder that you have homework three due in seven days.

[Show advanced settings...](#)

Preview

Hi [Name],

This is a reminder that you have homework three due in seven days.

As of now, you have a(n) [Grade] in the class. This assignment is worth [POINTS] points. If you get more than [X] ([X %]%) on this assignment, your class grade will increase to a(n) [Higher Grade]. If you get less than [Y] ([Y %]%) on this assignment, your grade will drop at least one grade. Not doing the assignment will result in a(n) [Lower Grade].

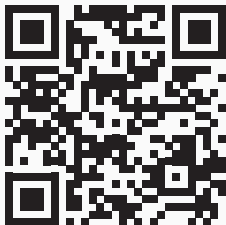
[Send Nudge Messages](#)

Hi Ben,

This is a reminder that you have homework three due in seven days.

As of now, you have a(n) D in the class. This assignment is worth 100.00 points. If you get more than 68.00 (68%) on this assignment, your class grade will increase to a(n) D+. If you get less than 52.00 (52%) on this assignment, your grade will drop at least one grade. Not doing the assignment will result in a(n) F.

1. Sending a grade nudge over email
2. Sending a grade nudge with a 'replace' column
3. Sending a file with a grade nudge
4. Sending a grade nudge using an outside tool



<https://bensresearch.com/nudge>